

The
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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF ARTS IN DEVELOPMENT STUDIES /
BACHELOR OF COMMERCE AND BACHELOR OF MANAGEMENT AND
LEADERSHIP

UCU 103 : INTRODUCTION TO LOGIC AND CRITICAL THINKING

DATE: 1st april 2019

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

COMPUTER VIRUSES

There are hundreds of thousands of viruses out there (if not millions) and they are often designed for different objectives. Most of them fall under the following categories: To take control of a computer and use it for specific tasks, to generate money, to steal sensitive information (credit card numbers, passwords, personal details, data etc.), to prove a point, to prove it can be done, to prove ones skill or for revenge purposes as well as to cripple a computer or network.

Viruses designed to take control of a computer and use it for specific tasks are the most common type, and are better classified as trojan. These types are usually downloaded unknowingly by the computer user thinking that the file is something else, such as a file sent from an instant messenger friend or email attachment. Once the host computer has been infected (known as a zombie computer), the trojan joins a private chat channel and awaits orders from its "Zombie Master". This Zombie Master, who is often the virus creator, will gather thousands of infected machines called a botnet and use them to mount attacks on web servers. The Zombie Master can command each of these infected computers to send a tiny bit of information to a web server – because there are potentially thousands of computers doing this at once, and this often overloads the server.

Viruses created to Generate Money often masquerade as free spyware or virus removal tools (known as rogeware). Once ran, these fake applications will "scan" your computer and say it has found some viruses (even if there aren't any), and in order to remove them, you must pay for the full version of the application. A good example of such an infection is called Myzor.fk. On the other hand, Viruses created to steal sensitive information can sniff the traffic going in or out of a computer for interesting information such as passwords or credit card numbers and send it back to the virus creator. These types of viruses often use keylogging as a method of stealing information where it maintains a record of everything that is typed into the computer

such as emails, passwords, home banking data, instant messenger and chats among others. These viruses also allow an attacker to gather an incredible amount of data about a person which can be used for identity theft purposes.

Viruses created to prove a point, to prove it Can Be Done, To Prove Ones Skill or For Revenge Purposes include the famous MS.Blaster virus (aka Lovesan) which infected hundreds of thousands of computers back in August 2003. This virus would cause the system to restart after 60 seconds and had two hidden messages written in its code:

One was *"I just want to say LOVE YOU SAN!!"* which is why the virus is sometimes called Lovesan, and the other message was *"billy gates why do you make this possible ? Stop making money and fix your software!!"* It is believed that the purpose of this virus was to prove how easily exploitable a Windows system is.

Finally, Viruses created To Cripple a Computer or Network are intended to disable a computer because it stops virus's ability to spread to other computers. Computer crippling viruses still exist, but nowhere near as common as the viruses mentioned above. The worst type of computer crippling viruses were back in the days of the 486 computers where the virus would overwrite the Master Boot Record (MBR) of the computer which would often prevent the computer from starting up at all. Unlike computer crippling viruses, network crippling viruses are all too common now days. Most viruses that are designed to launch a Denial of Service attack will cause a significant load on a computer network, often bringing it down completely.

Required:

- a) With reasons, state whether the second paragraph is an argument, a statement of believe or an expository passage (6 marks)
- b) Identify the first argument (starting from paragraph 3 onward) and give its conclusion and premise or premises (6 marks)

- c) Using legal reasoning, critique the statement that "all virus creators are criminals who need to be jailed" (6 marks)
- d) Using any known method, Prove the validity of the statement that "some computer viruses are bad because it is false that no computer viruses are bad" (7 marks)

QUESTION TWO

- a) From the following argument, identify the two fallacies committed, giving a brief explanation of each for your answer; Stakati to the crowd; Akinyi should be allowed to pass others in the queue. She has ten hungry children to feed and her boyfriend desperately needs an operation to save his life." No! Replied Wanjiku; if we allow Akinyi now, Weru will cry; Fatuma will faint, Makali will die and none of us will be left strong to withstand the hot sun. Surely nobody should be allowed to short cut the queue (9 marks)
- b) Draw a venn diagram consisting of two circles. Let circle 1 represent men and circle 2 mammals. Label common area A, area in circle 1 only B, area in Circle 2 only C and area outside the venn diagram D
Shade or mark the venn diagram appropriately
Give examples of items you find in area A, B, C, D (6 marks)

QUESTION THREE

- a) Explain the term cognition as used in logic (5 marks)
- b) Reduce the following categorical preposition into its standard forms, stating its letter name, quality, quantity and the terms distributed. Some game parks that are found in the tropics are not lands that are suitable for pastoralists ... (10 marks)

QUESTION FOUR

- a) Discuss essential characteristics of a deductive argument (6 marks)

- b) Explain the three factors that may lead an arguer to commit a fallacy
(9 marks)

QUESTION FIVE

- a) Discuss the purpose of critical thinking skills to a county governor (8 marks)
- b) Explain any four factors that influence the strength of an argument from analogy
(7 marks)

QUESTION SIX

- a) Discuss the various steps that you would apply to differentiate an argument from non-arguments
(8 marks)
- b) Mama Mboga knew only one chemical could cause the ripening of her fruits but didn't know which one. She therefore had to use the three types available to her. From the following table, identify which chemical was the cause of fruits ripening and state which of Mill's method is applicable in the identification
(7 marks)

NB: (+) indicates that the chemical was present and (-) indicates that it was absent

	Chemical A	Chemical B	Chemical C	
Pawpaw	+	+	-	Ripened
Mangoes	+	-	+	Didn't ripen
Mellon	-	+	+	Ripened
Oranges	+	+	-	Didn't ripen

